

*Notes on a monograph of the genus Lechea:* N. L. BRITTON.—The study of this perplexing genus is in the nature of a heritage to Dr. Britton from Mr. Wm. H. Leggett, who did much toward its elucidation. It is especially confused by the numerous species of Rafinesque, most of which seem almost impossible of identification.

*The specific germ of the carnation disease:* J. C. ARTHUR and H. L. BOLLEY.—In the absence of the authors this paper was read by title, but the abstract indicated the demonstration of a bacterial disease.

*Notes upon plants collected by Dr. Ed. Palmer at La Paz, Lower California, in 1890:* J. N. ROSE.—This paper represented part of the work being done by the Botanical Division of the Department of Agriculture. Dr. Palmer's collections from Lower California have brought to light many new and interesting plants, and Mr. Rose has long been engaged in their study. The present paper will appear in one of the forthcoming "Contributions from the National Herbarium."

*Notes upon crystals in certain species of the Arum family:* W. R. LAZENBY.—The relation of these crystals to acidity was discussed, the author having investigated a large number of cases, and inclining to the belief that the raphides are to be looked to as the explanation of acidity.

*Notes on Isopyrum biternatum:* C. W. HARGITT.—Professor Hargitt has been making a study of the tuberous root-swelling of this species, both as to their structure and contents. A preliminary notice of his results appears in this number of the GAZETTE.

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### Meeting of the Botanical Club at Indianapolis.

The Botanical Club had a very large and enthusiastic attendance, with no lack of papers or interest. The minutes of the meeting, as being of interest to all botanists, are published as follows:

The eighth annual meeting of the Botanical Club of the A. A. A. S. was called to order at 9 A. M. by the President, Dr. N. L. Britton, of Columbia College, New York, Professor C. R. Barnes being secretary. In accordance with the request of the Toronto meeting the President opened the proceedings with a brief résumé of the present state of systematic botany in North America. He gave a synopsis of

the work which is now being prosecuted in the various centers, together with mention of a number of the specialists and their investigations.

Mr. B. E. Fernow, chief of the Forestry Division of the Department of Agriculture, called attention to the subject of nomenclature, speaking of the movement for the registration of names of varieties of cultivated plants and the necessity of its direction by botanists; of the present condition of the nomenclature of trees, and of his intention to prepare a check-list of arboreal plants, embodying common as well as scientific names, in which he asks the assistance of botanists. He closed with an enumeration of the changes in the nomenclature of the common trees.

Dr. C. M. Weed, of the Agricultural Experiment Station of Ohio, spoke of a new eastern station for *Actinella acaulis* (a distinctively western composite) at Lakeside, O. Dr. Bessey mentioned the occurrence of this plant on the buttes of Nebraska and its entire absence on the plains.

Dr. Weed also called attention to the protection against borers afforded by the milky juice of certain plants. Dr. Burrill had received from a Grecian botanist an account of similar protection to the fig tree against its insect enemies.

Dr. W. J. Beal, of the Agricultural College of Michigan, spoke of the tubercles occurring on the larger roots of *Ceanothus Americanus*. Dr. Britton mentioned a similar observation by Dr. Thurber on *Rhexia Virginica*.

Dr. T. J. Burrill, of Illinois University, objected to the discarding of the genus *Bacterium*, as has been done by some bacteriologists. He pointed out the characteristics of the genus.

After announcements by the secretary, the club adjourned to 9 A. M. Friday.

FRIDAY, AUGUST 22.—A new hollyhock disease was described by Miss Effie A. Southworth. It is due to a fungus of the genus *Colletotrichum*, a new species which the author designates as *C. Althææ*. It attacks the stalk, petiole and leaves of greenhouse grown plants chiefly and causes a loss of 25 to 100 %. One experiment seems to indicate that the Bordeaux mixture may prove effective in combatting it.

Prof. F. Lamson-Scribner, Director of the Agricultural Experiment Station of Tennessee, spoke of the nature of the palea and lodicules in grasses. The conclusions drawn were: 1. That the palea are true prophylla, homologous with those which begin the culm branches, their structure

is similar and their position is the same, as they begin the branch which bears the flower and stand with their backs towards the main axis or rhachilla of the spikelet. 2. The lodicules are true scales, whose function is to expand or separate the glumes in anthesis, as the similar special epidermal development in the axils of the panicle branches serves to diverge these during the same period by pressing against the axis from which they spring.

Prof. W. R. Lazenby, of the Agricultural Experiment Station of Ohio, gave additional notes on the two forms of *Ampelopsis quinquefolia*, characterized by the differences in the power of clinging to walls. Peculiarities other than those of the tendrils were pointed out by other speakers. Dr. Bastin said that *A. Veitchii* showed similar forms.

Prof. L. H. Pammel, of the Agricultural College of Iowa, discussed the pollination of the genus *Æsculus*.

Dr. D. H. Campbell, of Indiana University, called attention to the occurrence of adventitious buds on *Lycopodium lucidulum*. The buds are at first green and later lose their chlorophyll and become yellowish. He also gave miscellaneous notes upon the germination of the spores and development of the prothallia and archegonia of various ferns.

MONDAY, AUGUST 25.—Notice of a descriptive list of the *Junci* of Texas was given by F. V. Coville, of the Department of Agriculture. One species is confined to Texas, 14 are of wider range and 2 are from the Rocky Mountains. No new species have been found.

Dr. J. C. Arthur, of the Indiana Agricultural Experiment Station, exhibited drawings of physiological apparatus as used in his laboratory. Additional suggestions were made by Messrs. Seaman, Bessey and Spalding. Dr. Bessey suggested that members bring drawings next year of their most successful apparatus.

Mr. F. V. Coville reported that the Botanical Exchange Club was in possession of about 5,000 specimens and would be able to enter upon extensive exchanges during the coming year. Mr. Seaman spoke of the necessity of preparing perfect specimens.

Prof. E. W. Claypole presented notes on various colonists at Akron, O., such as *Conium maculatum*, *Tragopogon porrifolius*, *Artemisia vulgaris*, *Cnicus arvensis*, and *Lactuca Scariola*. Dr. Burrill confirmed the occurrence of the two forms of Canada thistle and the variety of the seed-producing plants. The introduction of various weeds was noted by Prof. Arthur, Mr. Blatchley and others.

F. V. Coville exhibited a new form of collecting knife, the cotton knife of the inspectors of baled cotton.

TUESDAY, AUGUST 26.—In three short notes by Dr. B. D. Halsted, attention was called to the occurrence of double flowers in wild *Convolvulus sepium*; to peculiarities of the pollen of *Epilobium palustre* var. *oliganthum*; and to a supposed hybrid between *Tragopogon porrifolius* and *T. pratensis*.

Miss E. Porter, of Cornell University, described a mode of spore discharge in a species of *Pleospora* in which the spores are expelled simultaneously after the elongation of the inner coat of the ascus and its circumscissile dehiscence.

H. L. Bolley, of Purdue University, explained the results of a large series of experiments on potato scab which he is confident is a bacterial disease. The author also discussed the histology and biology of the disease fully and gave an outline of infection and culture experiments. The work was very highly commended by Dr. Burrill who had given attention to the disease himself. Dr. Arthur pointed out the curious fact that in order to succeed with infection experiments the tubers must not only be attached to the plant but must be in a healthy growing condition.

The officers elected for next year are: President, Wm. M. Canby, of Wilmington, Del.; Vice-President, L. M. Underwood, of Syracuse, N. Y.; Secretary, B. T. Gallo-way, Washington, D. C.

### BRIEFER ARTICLES.

**Excursion of the Botanical Club.**—The botanists were excused on Monday afternoon of the Association meeting, to take the promised excursion to the "Shades of Death." About seventy registered for the trip, and at 12:30 a special train, furnished with the compliments of the L. D. & W. Railway, steamed out of the Union Station for a quick run of nearly fifty miles towards the west. Upon reaching South Waveland carriages met the party and they were soon driving across the country a distance of seven miles to a young summer resort known to its management as "Garland Dell," but to the region thereabouts as the "Shades of Death." A deep and narrow gorge has been cut into the heavy subcarboniferous sandstones, a stream of water and abundant springs keep it moist, and the result is not only some beautiful scenery, but also a lavish display of such plants as delight in cool and damp and shady spots. The botanical crowd was soon scattered into little groups that kindred tastes brought together. There were collectors of Myxomycetes, of parasitic